REMARKS

The Office Action mailed May 13, 2009 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-3, 5-17, 19-31, and 33-42 are pending in this application. Claims 1-3, 5, 6, 15-17, 19, 20, 29-31, 33, and 34 stand rejected. Claims 7-14, 21-28, and 35-42 are canceled herein.

The objection to the Specification is respectfully traversed. The Specification has been amended to reincorporate the previously deleted subject matter. Accordingly, Applicants request that the objection to the Specification be withdrawn.

The rejection of Claims 1-3, 5, 6, 15-20, and 29-34 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is respectfully traversed.

On page 4 of the Office Action, the Examiner asserts that Claims 1-3, 5, 6, 15-20, and 29-34 stand rejected. However, Claims 18 and 32 were canceled via a previous Amendment. Moreover, on page 5 of the Office Action, the Examiner asserts that Claims 15-17 and 19-21 stand rejected. However, Claim 21 was withdrawn via a previous Amendment and is canceled herein. Accordingly, Applicants assume that the Examiner intended to reject Claims 1-3, 5, 6, 15-17, 19, 20, 29-31, 33, and 34 under Section 101.

Claim 1 has been amended to recite "utilizing, via the computed tomographic imaging system, the smoothing kernels," as suggested by the Examiner. Accordingly, Applicants respectfully submit that Claim 1 is in compliance with Section 101.

Claims 2, 3, 5, and 6 depend from independent Claim 1. When the recitations of Claims 2, 3, 5, and 6 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2, 3, 5, and 6 likewise are in compliance with Section 101.

Claim 15 has been amended to recite a "CT imaging apparatus comprising: a detector; a source configured to project a beam of x-rays toward said detector; and a computer system operatively coupled to at least one of said detector and said source, said computer system

comprising: a first module...." Accordingly, Applicants respectfully submit that Claim 15 is in compliance with Section 101.

Claims 16, 17, 19, and 20 depend from independent Claim 15. When the recitations of Claims 16, 17, 19, and 20 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claims 16, 17, 19, and 20 likewise are in compliance with Section 101.

Claim 29 has been amended to recite a "computer storage medium," as suggested by the Examiner. Accordingly, Applicants respectfully submit that Claim 29 is in compliance with Section 101.

Claims 30, 31, 33, and 34 depend from independent Claim 29. When the recitations of Claims 30, 31, 33, and 34 are considered in combination with the recitations of Claim 29, Applicants submit that dependent Claims 30, 31, 33, and 34 likewise are in compliance with Section 101.

For at least the reasons set forth above, Applicants respectfully request that the Section 101 rejection of Claims 1-3, 5, 6, 15-20, and 29-34 be withdrawn.

The rejection of Claims 1, 5, 6, 15, 19, 20, 29, 33, and 34 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,449,330 to Li et al. (hereinafter referred to as "Li") is respectfully traversed.

Li describes a computed tomography (CT) imaging system (10) that includes an x-ray source (14), a detector array (18), and a data acquisition system (DAS) (32) that samples analog data from detector array (18) and converts the data to digital signals for subsequent processing. An image reconstructor (34) receives sampled and digitized x-ray data from DAS (32) and performs high speed image reconstruction. In operation, image reconstructor (34) reconstructs images utilizing a set of threshold values that have been established using clinical image studies. Notably, Li does not describe or suggest scanning an object using a computed tomographic (CT) imaging apparatus to acquire projections of the object and determining a set of thresholds utilizing the projections themselves.

Claim 1 recites a method for reconstructing an image of an object in a computed tomographic imaging system, the method including "scanning an object using a computed

tomographic (CT) imaging apparatus to acquire projections of the object; determining a set of thresholds utilizing the projections; associating selected smoothing kernels with the thresholds; utilizing, via the computed tomographic imaging system, the smoothing kernels and the projections to produce three-dimensional smoothed projections in accordance with the thresholds; and filtering and backprojecting the three-dimensional smoothed projections to generate an image of the object in the computed tomographic imaging system."

Li does not describe or suggest a method for reconstructing an image of an object in a computed tomographic imaging system as is recited in Claim 1. Specifically, Li does not describe or suggest scanning an object using a computed tomographic (CT) imaging apparatus to acquire projections of the object and determining a set of thresholds **utilizing the projections themselves**. Rather, in contrast to the presently claimed invention, Li describes reconstructing images utilizing a set of threshold values that have been established **using clinical image studies**. Accordingly, Claim 1 is submitted to be patentable over Li.

Claims 5 and 6 depend from independent Claim 1. When the recitations of Claims 5 and 6 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 5 and 6 likewise are patentable over Li.

Claim 15 recites a CT imaging apparatus including "a detector; a source configured to project a beam of x-rays toward said detector; and a computer system operatively coupled to at least one of said detector and said source, said computer system comprising: a first module configured to scan an object to acquire projections of the object; a second module configured to determine a set of thresholds utilizing the projections; a third module configured to associate selected smoothing kernels with the thresholds; a fourth module configured to utilize the smoothing kernels and the projections to produce three-dimensional smoothed projections in accordance with the thresholds; and a fifth module configured to filter and backproject the three-dimensional smoothed projections to generate an image of the object."

Li does not describe or suggest a CT imaging apparatus as is recited in Claim 15. Specifically, Li does not describe or suggest scanning an object to acquire projections of the object and determining a set of thresholds **utilizing the projections themselves**. Rather, in contrast to the presently claimed invention, Li describes reconstructing images utilizing a set of threshold values that have been established **using clinical image studies**. Accordingly, Claim 15 is submitted to be patentable over Li.

Claims 19 and 20 depend from independent Claim 15. When the recitations of Claims 19 and 20 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claims 19 and 20 likewise are patentable over Li.

Claim 29 recites a computer storage medium including "instructions thereon, said instructions configured to instruct a computer to: determine a set of thresholds utilizing projections obtained by scanning an object; associate selected smoothing kernels with the thresholds; utilize the smoothing kernels and the projections to produce three-dimensional smoothed projections in accordance with the thresholds; and filter and backproject the three-dimensional smoothed projections to generate an image of the object."

Li does not describe or suggest a computer storage medium as is recited in Claim 29. Specifically, Li does not describe or suggest determining a set of thresholds **utilizing projections obtained by scanning an object**. Rather, in contrast to the presently claimed invention, Li describes reconstructing images utilizing a set of threshold values that have been established **using clinical image studies**. Accordingly, Claim 29 is submitted to be patentable over Li.

Claims 33 and 34 depend from independent Claim 29. When the recitations of Claims 33 and 34 are considered in combination with the recitations of Claim 29, Applicants submit that dependent Claims 33 and 34 likewise are patentable over Li.

Accordingly, Applicants respectfully request that the Section 102 rejection of Claims 1, 5, 6, 15, 19, 20, 29, 33, and 34 be withdrawn.

The rejection of Claims 2, 3, 16, 17, 30, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Li is respectfully traversed.

Li is described above.

Claims 2 and 3 depend from Claim 1, which is recited above.

Li does not describe or suggest a method for reconstructing an image of an object in a computed tomographic imaging system as is recited in Claim 1. Specifically, Li does not describe or suggest scanning an object using a computed tomographic (CT) imaging apparatus to acquire projections of the object and determining a set of thresholds **utilizing the projections themselves**. Rather, in contrast to the presently claimed invention, Li describes

reconstructing images utilizing a set of threshold values that have been established **using clinical image studies**. Accordingly, Claim 1 is submitted to be patentable over Li.

Claims 5 and 6 depend from independent Claim 1. When the recitations of Claims 5 and 6 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 5 and 6 likewise are patentable over Li.

Claims 16 and 17 depend from Claim 15, which is recited above.

Li does not describe or suggest a CT imaging apparatus as is recited in Claim 15. Specifically, Li does not describe or suggest scanning an object to acquire projections of the object and determining a set of thresholds **utilizing the projections themselves**. Rather, in contrast to the presently claimed invention, Li describes reconstructing images utilizing a set of threshold values that have been established **using clinical image studies**. Accordingly, Claim 15 is submitted to be patentable over Li.

Claims 19 and 20 depend from independent Claim 15. When the recitations of Claims 19 and 20 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claims 19 and 20 likewise are patentable over Li.

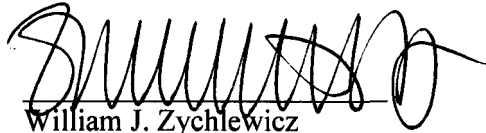Claims 30 and 31 depend from Claim 29, which is recited above.

Li does not describe or suggest a computer storage medium as is recited in Claim 29. Specifically, Li does not describe or suggest determining a set of thresholds **utilizing projections obtained by scanning an object**. Rather, in contrast to the presently claimed invention, Li describes reconstructing images utilizing a set of threshold values that have been established **using clinical image studies**. Accordingly, Claim 29 is submitted to be patentable over Li.

Claims 33 and 34 depend from independent Claim 29. When the recitations of Claims 33 and 34 are considered in combination with the recitations of Claim 29, Applicants submit that dependent Claims 33 and 34 likewise are patentable over Li.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 2, 3, 16, 17, 30, and 31 be withdrawn.

In view of the foregoing amendment and remarks, all of the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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